

REMARKS

This responds to the Office Action mailed on August 24, 2009.

Claims 10, 12, and 65 are amended. Claims 10-12 and 53-66 are pending in this application.

§ 103 Rejection of the Claims

Claims 10, 12, 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubota (U.S. 5,361,660) in view of Lyon (U.S. 2,821,156).

Claims 10, 12, and 64

Applicant has amended claim 12 to better describe the subject matter recited in the claim. Applicant believes claim 10 is not obvious in view of the Tsubota and Lyon references since, even if combined, the combination does not include or suggest each limitation recited in the claim. For instance, Applicant cannot find in the cited combination: wherein the ridge does not extend around the entire periphery of the upper end of the die hole such that the ridge includes an opening to the interior of the die hole so as to direct the lubricant from the lubrication reservoir area behind the ridge to the interior of the die hole at the opening in the ridge; and actuating the punch to punch an electrode layer out of the sheet, wherein the location of the sheet at the lubrication dam ridge opening receives more lubricant than sheet locations around the rest of the periphery not at the ridge opening, as recited in claim 10.

In contrast, the Tsubota reference discusses that “[t]he cutting oil from the oil supply source 23 is mixed with air and is fed in an atomized state in the form of upward intermittent spurts from the pressurized air supply source to the interior of the cylindrical tool die 11, such that it sticks to the lower tool 7.” (Col. 4, lines 13-18). Thus, the Tsubota reference discusses blowing atomized oil to cover the interior of the die.

In the Lyon reference, lubricant is delivered to the upper portion of the die to annular groove 37 by eight symmetrical passageways 41. (See Fig. 4 and col. 2, line 60 – col. 3, line 2). Thus groove 37 is filled equally all around with lubricant. Groove 37 includes an inner wall that extends around the entire periphery of the die hole and therefore does not include any openings

to the interior of the die hole. Instead, lubricant goes onto the workpiece from the top of the groove 37 as the piece is being stamped.

Accordingly, the combination of references does not include or suggest a ridge that does not extend around the entire periphery of the upper end of the die hole such that the ridge includes an opening to the interior of the die hole so as to direct the lubricant from the lubrication reservoir area behind the ridge to the interior of the die hole at the opening in the ridge, as recited in claim 10.

Claims 12 and 64 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Claim 65

Applicant has amended claim 65 Applicant believes claim 65 is not obvious in view of the Tsubota and Lyon references since, even if combined, the combination does not include or suggest each limitation recited in the claim. For instance, Applicant cannot find in the cited combination: wherein the ridge does not extend around the entire periphery of the upper end of the die hole such that the ridge includes an opening to the interior of the die hole so as to direct the lubricant to a specified, pre-determined location on the periphery of the open upper end of the die hole at the opening in the lubrication dam ridge to the interior of the die hole at the location where the punch will cut through the aluminum portion of the sheet and such that the specified, pre-determined location at the ridge opening to the die hole on the periphery of the open upper end of the die hole has more lubricant than other locations on the periphery of the open upper end of the die hole; and actuating the punch to punch an electrode layer out of the sheet, wherein the location of the sheet at the lubrication dam ridge opening receives more lubricant than sheet locations not at the ridge opening, as recited in claim 65.

As discussed above, neither reference includes or suggests such subject matter. Reconsideration and allowance is respectfully requested.

Claims 11 and 66 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsubota in view of Lyon as applied to claims 10 and 65 above, and further in view of Klint et al. (U.S. Patent No. 3,288,715, hereafter “Klint”).

Claims 11 and 66 include each limitation of their respective parent claims and are not obvious in view of the cited references since the secondary reference does not overcome the deficiencies of the primary references discussed above. Reconsideration and allowance is respectfully requested.

Claim 57 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsubota in view of Lyon as applied to claim 10 above, and further in view of 3M, "Fluorinert Electronic Liquid FC-43", May 2000.

Claim 57 includes each limitation of its parent claim and is not obvious in view of the cited references since the secondary reference does not overcome the deficiencies of the primary references discussed above. Reconsideration and allowance is respectfully requested.

CONCLUSION


Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 359-3267 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 27th day of October, 2009.

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Signature